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10/628,398	07/29/2003	Kazutoshi Usui	116684	3978

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EXAMINER	
TRAN, NHAN T	

ART UNIT	PAPER NUMBER
2622	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/628,398	USUI, KAZUTOSHI	
	Examiner	Art Unit	
	Nhan T. Tran	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 December 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,6-10 and 13-28* is/are rejected.

7)☒ Claim(s) *4,5,11 and 12* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/28/2007 has been entered.

Response to Arguments

2. Applicant's arguments filed 12/28/2007 with respect to claims 1-3, 6, 7, 9, 10, 13-17 and 26-28 have been fully considered but they are not persuasive.

The Applicant argues that Usui fails to disclose or suggest (1) holding a blur correcting optical system at a specific position in the blur correction disabled state by supplying power during an entire holding period in the blur correction disabled state, as recited in independent claims 1 and 6; and (2) resupplying the power in the correction disabled state to move the corrector to a predetermined position, and resupplying the power in the correction disabled state to hold the corrector at the predetermined position, as recited in independent claim 26. (Remarks, pages 11-12).

In response, the Examiner understands the Applicant's arguments but respectfully disagrees.

For feature (1), the Examiner notes that the correction lens (10) is held by electromagnetic force applied at the coils 14 by supplying the power to the coils during the entire holding period in the blur correction disabled state (the state where no shaking is detected and the release button is maintained at half-push position as shown in Fig. 5 and col. 6, lines 50-55). It is clearly seen in Usui reference that the correction lens is moved to the center axis and held therein for as long as the release button is at the half-push position for compensating sag of the elastic support members regardless of whether the shaking is detected or not (see Fig. 5 and col. 8, lines 26-56 and col. 6, lines 14-22, 50-55). Thus, during the entire holding period of the correction disabled state as mentioned above, the correction lens (10) is held by the electromagnetic force of the coils 14.

For feature (2), please note that the correction disabled state in Usui is represented by any or combination of the following situations: (a) camera power is off, (b) camera power is on but the release button is not pushed, and (c) camera power is on and the release button is pushed to a half-push position but no shaking is detected. In view of this, Usui also discloses resupplying the power in the correction disabled state to move the corrector to a predetermined position (this is the case when the release button is pushed to half-push position but no shaking is detected), and resupplying the power in the correction disabled state to hold the corrector at the predetermined position (the correction lens is held at the center axis to compensate for sag of the elastic support members as discussed in (1) above during the half-push and no shaking period).

3. Applicant's arguments with respect to claims 18-25 have been considered and are persuasive. However, upon further consideration, a new ground of rejection is made as set forth below.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 18-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term "a corrector that corrects a blur of the photographing apparatus", "a method of correcting a blur of a photographing apparatus" and "a method of correcting a blur of a photographing optical system" in claims 18, 23 and 26 are used by the claim to mean correcting blur of an image captured by the photographing apparatus, while the accepted meaning is "correcting blur of an image." The term is indefinite because the specification does not clearly redefine the term.

Priority

6. Acknowledgment is made of applicant's claim for foreign priority based on applications filed in JAPAN on 8/27/2002 & 9/27/2001. It is noted, however, that applicant has not filed certified copies of the JP 2002-246623 and JP 2001-297149 applications as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-3, 6-7, 9-10, 13-17, 26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Usui (US 5,619,293).

Regarding claim 1, Usui discloses a blur correction apparatus (Figs. 1(A)-8(B) and col. 1, lines 10-16) comprising:

a blur correcting optical system (blur suppression lens 10 shown in Fig. 1(A)) including at least a part of a photographic optical system, which corrects a blur occurring at an image-capturing surface of a photographing apparatus by moving within a movable range extending along a direction (X and/or Y direction) substantially

perpendicular to an optical axis (axis I) of the photographic optical system (see Fig. 1(A) and col. 4, lines 52-67);

a blur correction drive unit (combined coils 14a/14b, yokes 13a/13b and magnets 12a/12b shown in Figs. 1(A) – 2) that drives the blur correcting optical system (col. 4, lines 52-67);

a blur correction operation enabling unit (circuit shown in Fig. 4) that selects either a blur correction enabled state in which a blur correction operation executed by driving the blur correcting optical system is enabled (when a camera shaking is detected by the angular sensor 40, the circuit in Fig. 4 outputs a blur correction enable signal to drive the blur correction drive unit as illustrated in step S105 in Fig. 5) or a blur correction disabled state in which the blur correction operation is disabled (when there is no camera shaking detected by the angular sensor 40, the blur correction drive unit is not driven; see col. 5, line 56 – col. 6, line 27);

a control unit (a camera controller executes control steps as shown in Fig. 5) that controls the blur correction drive unit in the blur correction disabled state so as to hold the blur correcting optical system at a specific position (center position of the photographing optical system) in the blur correction disabled state by supplying power during an entire holding period in the blur correction disabled state (see col. 6, lines 52-55; col. 7, lines 15-20; col. 8, lines 35-56 and col. 2, lines 17-21, wherein lens 10 is held at the center optical axis I by supplying power to the coils during the centering process under normal photographing circumstances due to sag of support members of the lens 10 when release button is pushed to half-push position and no shaking is detected as

discussed in the Examiner's response above; it is inherent in Usui that the centering process is performed where no shaking is detected or so called blur correction disabled state since this centering process is a default calibration process of the camera for aligning the optical axis OC of lens 10 with the main optical axis I of the camera regardless of whether there is a camera shake or not so that the good resolution of the overall photographic is always maintained as disclosed in col. 7, lines 15-20) and that stops supplying power to the blur correction drive unit in the blur disabled state (this is when the camera is turned off or no photographing session is initiated) so as to not hold the blur correcting optical system at any specific position (see Figs. 3(A) & 3(B); col. 4, lines 8-10 and col. 5, lines 33-47, wherein the lens 10 is not held at any specific position because support rods 11 are elastic material which allows the lens to move freely when power is not supplied to the coils 14a/14b).

Regarding claim 2, this claim is also met by the analysis of claim 1 above, wherein the blur correcting optical system (lens 10) can freely move within a movable range (Figs. 3(A) & 3(B)) in the blur correction disabled state when the power supplied is stopped.

Regarding claim 3, it is also clear in Usui that the entire holding period is a photographing operation executed period (see Fig. 5, where the photographing operation executed period is the period during the release button is pushed).

Regarding claim 6, this claim is also met by the analysis of claim 1.

Regarding claim 7, Usui also discloses a photographing apparatus (i.e., an optical disk camera or a camcorder; col. 12, lines 1-20) comprising:

a blur correction apparatus according to claim 1 (see claim 1);

an image-capturing device (i.e., an image sensor of the camcorder) that electronically captures an image obtained through the photographic optical system; and a recording processing unit that records the image captured by the image-capturing device into a recording medium (i.e., an optical disk or tape of the camcorder; see col. 12, lines 1-20, and it should be noted that camcorder is a short form of camera and recorder).

Regarding claims 9-11, these claims are also met by the analyses of claims 2, 3, 4 & 7.

Regarding claim 13, this claim is also met by the analysis of claims 6 & 7.

Regarding claim 14, it is clear in Usui that the blur correcting optical system is held by electromagnetic force to maintain an image position at the image-capturing surface in the blur correction disabled state (see col. 5, lines 20-31; col. 6, lines 52-55; col. 7, lines 15-20; col. 8, lines 35-56 and col. 2, lines 17-21; please note the Examiner's analysis in claim 1 for centering process in the blur correction disabled state).

Regarding claim 15, as seen in Fig. 2, col. 5, lines 20-31 and col. 6, lines 52-55 of Usui, the blur correcting optical system is held at the specific position (the center optical axis I) by supplying the power without any mechanical contact between the blur correcting optical system and the blur correction drive unit (only electromagnetic force is used to drive the blur correction optical system).

Regarding claim 16, Usui clearly discloses that the blur correcting optical system is held at the specific position with at least one elastic member (at least one elastic rod 11 as shown in Fig. 1(A) and col. 4, lines 8-10).

Regarding claim 17, Usui clearly discloses that the control unit control the blur correction drive unit to hold the blur correcting optical system at the specific position (the center optical axis I for compensating the sag of the support members as discussed in claim 1) unless a predictable shock has occurred (see step S105 in Fig. 5, col. 6, line 64 – col. 7, line 8, wherein if shock, i.e., shaking, is detected, the blur correcting optical system is driven in the direction to cancel shaking in this step).

Regarding claim 26, this method claim is also met by the analysis of claim 1, wherein "the corrector" is the blur correction lens 10, and "a first direction" is either the X direction (yaw) or Y direction (pitch). Furthermore, Usui also anticipates "resupplying the power in the correction disabled state to hold the corrector at a predetermined

position" when the camera is turned off and then turned on again for another photographing session. In this case, the power is resupplied for performing centering process of the lens 10 in the calibration process as discussed in claim 1.

Regarding claim 27, this claim is also met by the analysis of claim 1, wherein the blur correction lens 10 is held at the center optical axis during centering process in the blur correction disabled state by electromagnetic force generated by the coils, yokes and magnets.

Regarding claim 28, this claim is also met by the analysis of claim 2. Note that the corrector can freely move in any direction including the first direction by virtue of the elastic rods 11.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Usui (US 5,619,293).

Regarding claim 8, although Usui does not explicitly disclose a display unit that displays the image obtained through the photographic optical system, an Official Notice is taken that such a built-in display unit is well known in the art for displaying the image obtained through the photographic optical system so that the photographer/user can view the image of object in real time during photographing. Therefore, it would have been obvious to one of ordinary skill in the art to include a display unit in Usui for displaying the image obtained through the photographic optical system so as to provide live view framing to the photographer/user during photographing.

Allowable Subject Matter

10. Claims 4, 5, 11 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 4, the prior art of record fails to teach fails to teach or fairly suggest the limitation of claim 4 in combination with claim 1, wherein the entire holding period is a period at which the photographing apparatus is subjected to a shock.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (571) 272-7371. The examiner can normally be reached on Monday - Friday, 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NHAN T. TRAN
Patent Examiner